

Central Indiana May 2021 Climate Summary

50th Coolest on record at Indianapolis

65th Driest on record at Indianapolis

Temperatures

The month featured several periods of anomalous temperatures as the seven 1st-order airports tallied 15–19 days that averaged either 8+ degrees above or 8+ degrees below normal.

The generally chilly pattern of mid to late April 2021 continued through the first half of May, as highlighted by an unseasonably cold period during **May 5th–15th**. An anomalously deep and broad upper-level trough, a couple strong ridges of Canadian high pressure, and a generally northwest flow all contributed to readings consistently 10-20F below normal. The coldest mornings were the 8th and the 10th, with Terre Haute reporting a late freeze (31F on 5/8); as did many COOP sites, mainly north of I-70 (including Rockville on 6 mornings), as well as sites as far south as Bloomington Indiana University (28F on 5/7), and Carmel 3E (31F on 5/10). Frost accrual was a concern for several nights during this period: Frost Advisories were issued for all but southwestern and/or southern counties for the overnights of the 7th-8th and 9th-10th, with a third and final Frost Advisory issued for the entire region for the overnight of the 11th-12th.

Very warm conditions then occurred **May 19th–26th** as a broad upper ridge built over the Ohio Valley. Widespread mid to upper 80s were seen across the region, including the year's first 90F+ readings in several locations, especially far southwestern counties. Temperatures were generally ~10F above normal for 3-4 days, with May 24th through the morning of the 26th being the warmest period. The highest morning lows were generally in the upper 50s to upper 60s, although a daily minimum of 70F was recorded on 5/26 at both Shelbyville and the Purdue Ag Center north of Vincennes.

A rather quick, yet potent blast of cool air graced central Indiana on **May 28th–31st** as an amplified, yet positively-tilted trough combined with yet another mass of Canadian high pressure to provide 2-3 days of chilly northeasterly flow. The 29th afternoon maximum only reached the mid 60s; while lows all three mornings dropped to the 40s to near 50F; as well as 39F at Bloomington IU and 37F at the Purdue Agronomy Center northwest of West Lafayette (both on 5/29). The eight other days outside of these three anomalous periods included rather

mild readings during May 1st–4th; and a generally near-normal period for May 16th–18th.

May 2021's widespread overall below average temperatures continued May 2020's trend of near to below normal readings. However, May 2021 reversed April 2021's trend of near to above normal temperatures. And when considering the spring 2021 season, May 2021 continued the relative downward trend in temperatures – following a very warm March, and the near normal to slightly warm April.

Given the month's several strong regime changes, Indianapolis' high and low temperatures were not held above or below any threshold for long durations. The closest such distinction was high temperatures remaining below 70F for 11 consecutive days (3rd–13th) ... and also above 75F for 9 consecutive days (19th–27th). Indianapolis' 7 days with highs at or above 80F tied May 2020's tally for the least amount in any May since 2009. Indy's 6 days with lows at or below 40F was the second-most since 2002 (May 2020 holds the greatest recent total with 8).

Site	May 2021 Average Temp	May 2021 Diff. from Normal	Highest Temperature	Lowest Temperature
Indianapolis Int'l AP	60.7	-2.7	87 on 24 th	34 on 10 th
Lafayette	63.8	+2.2	93 on 24 th	35 on 8 th
Muncie	61.6	-2.8	91 on 26 th	34 on 10 th
Terre Haute	61.4	-2.6	87 on 25 th	31 on 8 th
Bloomington	61.8	-2.0	90 on 25 th	33 on 8 th
Shelbyville	62.7	-2.4	91 on 26 th	36 on 1 st , 10 th
Indianapolis Eagle Creek	60.6	-3.2	88 on 25 th	34 on 10 th

At Indianapolis, May 2021's daily average temperatures were above normal on 12 days and below normal on 19 days. It was the **50th coolest** May for the Indianapolis Area since weather records began 150 years ago in 1871.

Precipitation

Rainfall for the month of May was generally below normal for much of central Indiana with amounts only reaching to around 50% of normal across the southern portions of the state. Amounts were near to slightly above normal across north central Indiana where some spots received over 5 inches of rain.

The first period of heavy rain for the month occurred from May 3rd to May 4th. During the afternoon and evening hours of May 3rd, scattered thunderstorms moved across much of central Indiana with rain amounts of around an inch across the Indianapolis area. The following day, heavy rain moved through the southeastern counties of central Indiana with amounts up to 1.25 inches near Columbus.

Flooding began to impact north central Indiana after heavy rains from May 8th to the 9th with rain amounts of 2 to 3 inches across the Upper Wabash Valley. Minor flooding occurred along smaller streams across north central Indiana with brief moderate flooding along the Mississinewa River near Ridgeville. Flooding almost reached moderate along the Wabash River near Lafayette with those higher river levels extending down to Riverton by the middle of the month.

The next major rain event of the month occurred on the 17th when widespread light to moderate rain fell across much of Indiana with the heaviest amounts located in a line stretching from Terre Haute to Columbus where 1.5 to 2.5 inches of rain fell. Elsewhere, rain amounts generally were about a half inch to an inch. With the week of generally dry conditions before that, there were little impacts to the major rivers across the area with some smaller streams rising into action stage.

Sporadic rainfall continued into the last week of May with generally dry conditions most of the time. From the 26th to the 28th, the heaviest rain fell across the north central Indiana and the upper Wabash basin with a 3-day total of almost 2 inches near Lafayette.

Site	May 2021 Precipitation	May 2021 Diff. from Normal	Wettest Day	Longest Dry Stretch
Indianapolis Intl AP	3.57	-1.18	0.98 on 17 th	5 days, 20-24 th
Lafayette	5.59	+1.55	2.08 on 9 th	6 days, 20-25 th
Muncie	3.10	-1.26	1.56 on 9 th	7 days, 18-24 th
Terre Haute	4.68	-0.03	2.72 on 17 th	5 days, 10-14 th , 20-24 th
Bloomington	1.44 INC	M	M	5 days, 10-14 th , 20-24 th
Shelbyville	3.58	-1.04	1.10 on 17 th	6 days, 20-25 th
Indy – Eagle Creek	3.33	-0.99	1.03 on 9 th	5 days, 20-24 th

May 2021 was the **65th driest** for the Indianapolis Area since records began 150 years ago in 1871.

Severe Weather

This May was the first (since present records began in 2005) with no severe events (winds 58+ mph, hail 1.00"+, tornadoes) were reported across central Indiana. This anomaly is all the more notable as May is typically one of Indiana's busiest months of severe weather. *Please see the Spring 2021 Climate Summary for notes on the general lack of local severe events since April.*

However, strong thunderstorms did cross the region on May 6th, 7th, and 9th; including ~0.50" hail near Gessie (Vermillion County) on the 6th, and penny hail (0.75") near Greensburg (Decatur County) on the 7th. *For info on severe weather in other areas during May, visit the Storm Prediction Center "Severe Weather Event Summaries" website at spc.noaa.gov/climo/online*

Miscellaneous Weather

The maximum wind gust at the Indianapolis International Airport was 45 mph, reached on both May 6th (from the northwest) and May 7th (from the west) as strong storms crossed the region both days under a broad, deep upper-level trough.

Fog was reported at Indianapolis on 11 days during the month, with no dense fog. Fog was most frequent at Bloomington (15 days) and Terre Haute (13 days). Thunder was reported at Indianapolis on 4 days.

June 2021 Outlook

The official outlook for June 2021 from the Climate Prediction Center indicates a greater chance for above normal temperatures for central Indiana ... except for the region's far southwestern counties where an equal chance of above, below or near normal temperatures are expected. The normal June temperature for Indianapolis is 72.5 degrees.

The outlook also indicates an equal chance for above, below or near normal precipitation for this June ... except for the region's far southern counties where a greater chance for above normal precipitation is expected. The normal June precipitation at Indianapolis is 4.95".

Data prepared by the Indianapolis Weather Forecast Office's Indiana State Climate Team